

REMARKS

Prior to this response, Claims 1-3, 5-16, 38, 40, 41 and 43-53 were pending in the application, with all claims rejected. By this amendment, no claims are added or cancelled, and no claims are amended. Hence, Claims 1-3, 5-16, 38, 40, 41 and 43-53 are still pending in the application.

Information Disclosure Statement

As a preliminary matter, the file history does not appear to indicate that the references listed on Form PTO-1449 submitted with the Information Disclosure Statement dated March 22, 2005 have been considered in the examination of the application. It is kindly requested that these references be considered and a corresponding initialed Form PTO-1149 provided with the next paper.

SUMMARY OF THE REJECTIONS/OBJECTIONS

Claims 38, 40, 41 and 43-53 were rejected under 35 U.S.C. § 101 as allegedly directed to non-statutory subject matter; Claims 1-3, 5-15, 38, 41 and 43-53 were rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Guillen et al. ("*Guillen*"; U.S. Patent No. 5,701,485) in view of Shoening et al. ("*Shoening*"; U.S. Patent No. 6,769,124); and Claims 16 and 40 were rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over *Guillen* in view of *Shoening* further in view of Curtis et al. ("*Curtis*"; U.S. Patent No. 6,336,216).

THE REJECTIONS NOT BASED ON THE PRIOR ART

Claims 38, 40, 41 and 43-53 were rejected under 35 U.S.C. § 101 as allegedly directed to non-statutory subject matter. Specifically, the Office Action contends that computer-readable media embodied in carrier waves are for some reason now intangible and, therefore, non-statutory. This rejection is traversed, based on the following remarks.

It is submitted that there is no such “tangible medium” test for patentability stated in 35 U.S.C. §101. PTO practice has considered transmission media (e.g., carrier waves) patentable subject matter for years, if not a decade. In fact, the Examination Guidelines For Computer-Related Inventions (March 28, 1996) indicate that “specific software embodied in a carrier wave” recites “specific software embodied on a computer-readable medium.”

Next, even if there was a legal basis for a tangible medium requirement, the types of transmission waves described in the specification are tangible. Claims 38, 40, 41 and 43-53 expressly state that the media must be readable by a computer. Therefore, the media recited in these claims are necessarily perceivable and tangible media because they have to be read by a computer, and the fact that such wave types are computer-readable alone is dispositive evidence that the claimed wave types are tangible. That is, it is inherent that if a computer can read the medium, it is a tangible medium. Significantly, the medium is readable by a computer because of its physical properties, i.e., its ‘physical substance’. Therefore, computer-readable media embodied in a carrier wave, where the wave is encoded with instructions that are readable by a computer, are both a statutory article of manufacture and a statutory product.

Furthermore, the idea that the various types of carrier waves described in the application are not composed of some form of matter seems misguided. Simply because the human visual system may not be capable of physically *seeing* all such waves does not mean that they are intangible or not composed of physical matter. If light waves and electromagnetic waves (e.g., radio and infrared) are produced and transmitted with enough energy and focus, a human could certainly physically *feel* the corresponding effect, as both types of waves are currently used, for example, in surgical procedures (e.g., LASIK eye surgery and laser-assisted uvulopalatoplasty, and radiofrequency-assisted uvulopalatoplasty) and military weapons. For example, acoustic waves are mechanical waves that propagate through air, liquid or solids and are essentially

composed of the physical medium through which the waves propagate. For another example, electromagnetic waves carry energy and momentum which may be imparted when interacting with other matter.

Additionally, in view of the advances that have been made in a myriad of technologies that harness and utilize the underlying physical properties of waves, and the benefits to society from such advances, there is no apparent public policy reason for Congress or an administrative body to exclude from patentable subject matter carrier waves encoded by a machine with instructions that can be read by a machine.

For the reasons set forth above, it is respectfully submitted that Claims 38, 40, 41 and 43-53 are not directed to non-statutory subject matter and, therefore, withdrawal of the rejection of Claims 38, 40, 41 and 43-53 under 35 U.S.C. § 101 is respectfully requested¹.

THE REJECTIONS BASED ON THE PRIOR ART

Claims 1-3, 5-15, 38, 41 and 43-53

Claims 1-3, 5-15, 38, 41 and 43-53 were rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over *Guillen* in view of *Shoening*. This rejection is traversed, because a *prima facie* case of obviousness is not established based on the cited references of record.

Applicant concedes that *Guillen* likely discloses a technique that would produce a similar result as the embodiment recited in Claim 1, i.e., a technique for employing instance-level methods for objects in an object-oriented programming context. However, *Guillen* does not disclose the specific approach recited in Claim 1. This is because the dispatch table of

¹ However, in order to further a positive disposition of this application, Applicants are amenable to an examiner's amendment of Claims 38, 40, 41 and 43-53 to replace 'computer-readable medium *carrying* one or more sequences of instructions' to 'computer-readable medium *bearing* one or more sequences of instructions' or 'computer-readable medium *storing* one or more sequences of instructions' if the 35 U.S.C. § 101 rejection is the only remaining reason for withholding allowance of these claims.

Guillen is not the same as the policy object of Claim 1 in that the dispatch table is not an instance of a class, rather, the dispatch table is simply a table. Thus, the dispatch table is unable to inherit properties of a defined class, as the policy object, due to its nature, is able to inherit properties from the policy object class recited in Claim 1.

The Office Action relies on *Shoening* for teachings relating to storing objects, which are instances of a class, and mapping the objects to rows of a database table. However, Applicants are not claiming the inherent relationship (in object oriented programming) of a class to the object instances of that class. Rather, Claim 1 recites an embodiment of the invention that stores a specific type of object (the policy object) that is an instance of a specific class (the policy class), and utilizes this specific type of object to associate a per-instance method with an instance of another class, where the per-instance method is not in the instance's conventional class lineage.

Another difference between the teachings of *Guillen* (in the context of a combination with *Shoening*) and the embodiment recited in Claim 1 is as follows. In *Guillen*, a selected method is loaded into the instance specific dispatch table which is associated with an object, as are a corresponding method name and method address (col. 7, lines 21-53). Thus, the dispatch table points to a compiled method in the same dispatch table, i.e., the dispatch table points to itself. By contrast, with embodiments of the invention, a policy bundle object is associated with an object instance, where the policy bundle object points to or otherwise references one or more corresponding policy objects that actually define a method and an implementation of the method (*see*, e.g., policy_bundle 241 and policy 251 of FIG. 2c, FIGS. 9, 10a, 10b, and corresponding descriptions).

Hence, one non-limiting advantage of embodiments of the invention is that the policy object and the corresponding method implementation need to be read into volatile memory only

as needed (via the relatively 'lean' policy bundle object), rather than having to read into volatile memory the entire method reference mechanism (i.e., the dispatch table) and all the corresponding methods referenced in the dispatch table as in *Guillen*, which is more likely to tax the volatile memory resources in many more occasions because a dispatch table may contain many methods.

Additionally, the disclosure of *Shoening* does not cure the foregoing deficiencies and differences in the disclosure of *Guillen* and, therefore, any combination of *Guillen* and *Shoening* would not make obvious to one skilled in the art the specific technique recited in Claim 1. Therefore, the references of record do not substantiate a valid rejection of the subject matter recited in Claim 1. Based on the foregoing differences between the collective teachings of *Guillen* and *Shoening*, withdrawal of the rejection of Claim 1 under 35 U.S.C. § 103(a) is respectfully requested.

Each of Claims 2, 3 and 5-16 depends from Claim 1 and, therefore, is patentable over the cited references of record for at least the same reasons as Claim 1.

Claim 38 recites similar features as Claim 1 but in a different claim format. Therefore, Claim 38 is patentable over the cited references of record for at least the same reasons as Claim 1, discussed above.

Each of Claims 40, 41 and 43-53 depends from Claim 38 and, therefore, is patentable over the cited references of record for at least the same reasons as Claim 38.

Claims 16 and 40

Claims 16 and 40 were rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over *Guillen* in view of *Shoening* further in view of *Curtis*. This rejection is traversed, because of *prima facie* case of obviousness is not established based on the cited references of record.

Claim 16 depends from Claim 1 and Claim 40 depends from Claim 38. Therefore, Claims 16 and 40 are patentable over the cited references of record for at least the same reasons as the claim from which these claims respectively depend, as discussed above.

CONCLUSION

For the reasons set forth above, it is respectfully submitted that all of the pending claims (1-3, 5-16, 38, 40, 41 and 43-53) are in condition for allowance. Therefore, the issuance of a formal Notice of Allowance is believed next in order, and that action is most earnestly solicited.

The Examiner is respectfully requested to contact the undersigned by telephone if it is believed that such contact would further the examination of the present application.

Please charge any shortages or credit any overages to Deposit Account No. 50-1302.

Respectfully submitted,

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